

CLAIM LISTING

Applicants provide this claim listing for the convenience of the Examiner, the claims have not been amended in this Response.

Listing of Claims:

Claim 1 (Previously Presented): A method of cementing comprising the steps of:

providing a cement composition comprising a cement, and a dispersant composition, the dispersant composition comprising a surfactant and a hydrolyzed protein;
allowing the dispersant composition to disperse at least some of the cement composition;
placing the cement composition in a desired location; and
allowing the cement composition to set therein.

Claims 2-4 (Cancelled).

Claim 5 (Previously Presented): The method of claim 1 wherein the hydrolyzed protein comprises at least one of the following: a hydrolyzed chitin, a hydrolyzed collagen, a hydrolyzed casein, a hydrolyzed rice protein, a hydrolyzed soy protein, a hydrolyzed wheat protein, or a combination thereof.

Claim 6 (Previously Presented): The method of claim 1 wherein the surfactant comprises at least one of the following: an amphoteric surfactant, a zwitterionic surfactant, or a combination thereof.

Claim 7 (Previously Presented): The method of claim 1 wherein the surfactant comprises a betaine.

Claim 8 (Previously Presented): The method of claim 1 wherein the surfactant comprises a cocobetaine.

Claim 9 (Previously Presented): The method of claim 1 wherein the surfactant comprises at least one of the following: a cocoamidoethyl betaine, a cocoamidopropyl betaine, a lauryl betaine, a lauramidopropyl betaine, a palmamidopropyl betaine, a stearamidopropyl betaine, a stearyl betaine, a lauryldimethyl betaine, a cetyldimethyl betaine, a hydrogenated cocoamidopropyl

betaine, a stripped coco(methyl ester)amidopropyl betaine, a derivative thereof, or a combination thereof.

Claim 10 (Previously Presented): The method of claim 1 wherein the hydrolyzed protein and surfactant are present in the range of from about a one to ten ratio to about a ten to one ratio of hydrolyzed protein to surfactant.

Claim 11 (Previously Presented): The method of claim 1 wherein the hydrolyzed protein and surfactant are present in about a one to one ratio.

Claim 12 (Original): The method of claim 1 wherein the dispersant composition is a solid, a liquid, an emulsion, or a mixture thereof.

Claim 13 (Original): The method of claim 1 wherein the dispersant composition further comprises a defoamer.

Claim 14 (Previously Presented): The method of claim 13 wherein the defoamer comprises at least one of the following: a fatty acid, a vegetable oil, a polypropylene glycol, a low hydrophile-lipophile balance surfactant, or a combination thereof.

Claim 15 (Previously Presented): The method of claim 13 wherein the defoamer comprises at least one of the following: rapeseed oil, aluminum stearate, or a combination thereof.

Claim 16 (Original): The method of claim 13 wherein the defoamer is present in the dispersant composition in an amount sufficient to inhibit or prevent foaming.

Claim 17 (Original): The method of claim 13 wherein the defoamer is present in the dispersant composition in the range of from about 0.01% to about 50% by volume of the dispersant composition.

Claim 18 (Original): The method of claim 1 wherein the dispersant composition further comprises a biocide.

Claim 19 (Original): The method of claim 1 wherein the dispersant composition is present in the cement composition in an amount sufficient to reduce the apparent viscosity of the cement composition prior to setting.

Claim 20 (Original): The method of claim 1 wherein the dispersant composition is present in the cement composition in an amount of from about 0.01% to about 6% by weight of cement.

Claim 21 (Original): The method of claim 1 wherein the cement is a hydraulic cement.

Claim 22 (Previously Presented): The method of claim 22 wherein the hydraulic cement comprises at least one of the following: calcium, aluminum, silicon, oxygen, sulfur, or a combination thereof.

Claim 23 (Previously Presented): The method of claim 22 wherein the hydraulic cement comprises at least one of the following: a Class A, a Class C, a Class H, or a Class G cement.

Claim 24 (Original): The method of claim 1 wherein the cement is a low-density cement.

Claim 25 (Original): The method of claim 1 wherein the cement composition further comprises water that is present in an amount sufficient to allow the cement composition to be a pumpable slurry.

Claim 26 (Original): The method of claim 25 wherein the water comprises fresh water, salt water, or brine.

Claim 27 (Original): The method of claim 1 wherein the water component is present in an amount in the range of from about 16% to about 200% by weight of the cement in the cement composition.

Claim 28 (Original): The method of claim 25 wherein the cement is a hydraulic cement, the water component is present in an amount from about 16% to about 200% by weight of the cement in the cement composition, and the dispersant composition is present in an amount in the range of from about 0.01% to about 6% by weight of the cement in the cement composition.

Claim 29 (Previously Presented): The method of claim 1 wherein the cement composition further comprises at least one of the following: a fluid loss additive, a weighting material, a light weight material, a set retarder, an accelerator, a defoaming agent, a foaming agent, or a combination thereof.

Claim 30 (Previously Presented): A method of dispersing a cement composition comprising:
adding to the cement composition a dispersant composition comprising a surfactant and a hydrolyzed protein and;
allowing the dispersant composition to disperse at least some of the cement composition.

Claims 31-33 (Cancelled).

Claim 34 (Previously Presented): The method of claim 30 wherein the hydrolyzed protein comprises at least one of the following: a hydrolyzed chitin, a hydrolyzed collagen, a hydrolyzed casein, a hydrolyzed rice protein, a hydrolyzed soy protein, a hydrolyzed wheat protein, or any combination thereof.

Claim 35 (Previously Presented): The method of claim 30 wherein the surfactant comprises at least one of the following: an amphoteric surfactant, a zwitterionic surfactant, or a combination thereof.

Claim 36 (Previously Presented): The method of claim 30 wherein the surfactant comprises a betaine.

Claim 37 (Previously Presented): The method of claim 30 wherein the surfactant comprises a cocobetaine.

Claim 38 (Previously Presented): The method of claim 30 wherein the surfactant comprises at least one of the following: a cocoamidoethyl betaine, a cocoamidopropyl betaine, a lauryl betaine, a lauramidopropyl betaine, a palmamidopropyl betaine, a stearamidopropyl betaine, a stearyl betaine, a lauryldimethyl betaine, a cetyldimethyl betaine, a hydrogenated cocoamidopropyl betaine, a stripped coco(methyl ester)amidopropyl betaine, a derivative thereof, or combinations thereof.

Claim 39 (Original): The method of claim 30 wherein the dispersant composition is present in the cement composition in an amount sufficient to reduce the apparent viscosity of the cement composition.

Claim 40 (Original): The method of claim 30 wherein the dispersant composition is present in the cement composition in an amount of from about 0.01% to about 6% by weight of cement.

Claims 41 - 86 (Cancelled).

Claim 87 (Previously Presented): The method of claim 1 wherein the desired location is an annular space between the walls of a well bore and an exterior surface of a pipe string disposed in the well bore.

Claim 88 (Previously Presented): The method of claim 1 further comprising the step of:
providing the dispersant composition; and
mixing the dispersant composition and the cement to form the cement composition.

Claim 89 (Previously Presented): The method of claim 1 wherein the cement composition comprises water in an amount sufficient to form a pumpable slurry and a dispersant in an amount sufficient to reduce the apparent viscosity of the cement composition.

Claim 90 (Previously Presented): A method of cementing in a subterranean formation comprising:

providing a cement composition comprising water in an amount sufficient to form a pumpable slurry, a hydraulic cement, and a dispersant composition in an amount effective to reduce the apparent viscosity of the cement composition, the dispersant composition comprising a surfactant and a hydrolyzed protein;

allowing the dispersant composition to reduce the apparent viscosity of the cement composition;

introducing the cement into a subterranean formation; and

allowing the cement composition to set therein.

Claim 91 (Previously Presented) The method of claim 90 wherein the hydrolyzed protein comprises at least one of the following: a hydrolyzed chitin, a hydrolyzed collagen, a hydrolyzed casein, a hydrolyzed rice protein, a hydrolyzed soy protein, a hydrolyzed wheat protein, or a combination thereof.

Claim 92 (Previously Presented): The method of claim 90 wherein the surfactant comprises at least one of the following: an amphoteric surfactant, a zwitterionic surfactant, or a combination thereof.

Claim 93 (Previously Presented) The method of claim 90 wherein the surfactant comprises a betaine.

Claim 94 (Previously Presented): The method of claim 90 wherein the surfactant comprises a cocobetaine.

Claim 95 (Previously Presented): The method of claim 90 wherein the surfactant comprises at least one of the following: a cocoamidoethyl betaine, a cocoamidopropyl betaine, a lauryl betaine, a lauramidopropyl betaine, a palmamidopropyl betaine, a stearamidopropyl betaine, a stearyl betaine, a lauryldimethyl betaine, a cetyldimethyl betaine, a hydrogenated cocoamidopropyl betaine, a stripped coco(methyl ester)amidopropyl betaine, a derivative thereof, or a combination thereof.

Claim 96 (Previously Presented): The method of claim 90 wherein the hydrolyzed protein and surfactant are present in the range of from about a one to ten ratio to about a ten to one ratio of hydrolyzed protein to surfactant.

Claim 97 (Previously Presented): The method of claim 90 wherein the hydrolyzed protein and surfactant are present in about a one to one ratio.

Claim 98 (Previously Presented): The method of claim 90 wherein the dispersant composition is a solid, a liquid, an emulsion, or a mixture thereof.

Claim 99 (Previously Presented): The method of claim 90 wherein the dispersant composition further comprises a defoamer.

Claim 100 (Previously Presented): The method of claim 99 wherein the defoamer comprises at least one of the following: a fatty acid, a vegetable oil, a polypropylene glycol, a low hydrophile-lipophile balance surfactant, or a combination thereof.

Claim 101 (Previously Presented) The method of claim 99 wherein the defoamer comprises at least one of the following: rapeseed oil, aluminum stearate, or a combination thereof.

Claim 102 (Previously Presented): The method of claim 99 wherein the defoamer is present in the dispersant composition in an amount sufficient to inhibit or prevent foaming.

Claim 103 (Previously Presented): The method of claim 99 wherein the defoamer is present in the dispersant composition in the range of from about 0.01% to about 50% by volume of the dispersant composition.

Claim 104 (Previously Presented): The method of claim 90 wherein the dispersant composition further comprises a biocide.

Claim 105 (Previously Presented): The method of claim 90 wherein the dispersant composition is present in the cement composition in an amount sufficient to reduce the apparent viscosity of the cement composition prior to setting.

Claim 106 (Previously Presented): The method of claim 90 wherein the dispersant composition is present in the cement composition in an amount of from about 0.01% to about 6% by weight of cement.

Claim 107 (Previously Presented): The method of claim 90 wherein the hydraulic cement comprises at least one of the following: calcium, aluminum, silicon, oxygen, sulfur, or a combination thereof.

Claim 108 (Previously Presented): The method of claim 90 wherein the hydraulic cement comprises at least one of the following: a Class A, a Class C, a Class H, or a Class G cement.

Claim 109 (Previously Presented): The method of claim 90 wherein the cement is a low-density cement.

Claim 110 (Previously Presented): The method of claim 90 wherein the water comprises fresh water, salt water, or brine.

Claim 111 (Previously Presented): The method of claim 90 wherein the water component is present in an amount in the range of from about 16% to about 200% by weight of the cement in the cement composition.

Claim 112 (Previously Presented): The method of claim 90 wherein the water is present in an amount from about 16% to about 200% by weight of the cement in the cement composition, and the dispersant composition is present in an amount in the range of from about 0.01% to about 6% by weight of the cement in the cement composition.

Claim 113 (Previously Presented): The method of claim 90 wherein the cement composition further comprises at least one of the following: a fluid loss additive, a weighting material, a light weight material, a set retarder, an accelerator, a defoaming agent, a foaming agent, or a combination thereof.